

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

New claims 25 and 26 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 2, 4, 8, 11, 13, 14, 18, and 20-26 are now pending in this application.

Rejections under 35 U.S.C. § 103

Claims 1-5, 8, 11, 13, 14, 18, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,392,248 to Takahara *et al.* (hereafter “Takahara”) in view of U.S. Patent No. 6,429,430 to Sato *et al.* (hereafter “Sato”), U.S. Patent No. 5,545,899 to Tran *et al.* (hereafter “Tran”), U.S. Patent No. 6,384,417 to Okumura *et al.* (hereafter “Okumura”), U.S. Patent No. 6,394,650 to Ohara *et al.* (hereafter “Ohara”), and U.S. Patent No. 5,640,016 to Matsuda *et al.* (hereafter “Matsuda”). This rejection is respectfully traversed.

Claim 1 recites a phosphor sheet for a radiation detector provided to be attached to a photoelectric conversion film of the radiation detector comprising, among other things, a support having a sheet shape and a phosphor layer, wherein said phosphor layer has a surface that is configured to be bonded onto the photoelectric conversion film by an adhesive that transmits light, wherein the surface has been smoothed by a treatment using a metal roll or a metal plate. Claim 11 includes similar language. Claims 2, 4, and 8 depend from claim 1 and claims 13, 14, 18, and 20 depend from claim 11.

Takahara discloses a color light emission sheet 4 that includes a flexible sheet base 6 and a phosphor layer 7 disposed on the sheet 6. See Takahara at col. 7, line 63, to col. 8, line 2. However, as suggested on page 4 of the Office Action, Takahara does not disclose or suggest that the phosphor layer 7 has a surface that is configured to be bonded onto the

photoelectric conversion film by an adhesive that transmits light, as recited in claims 1 and 11.

Sato discloses a scintillator panel 2 that includes a scintillator 12, a substrate 10, first transparent organic film 14, a transparent inorganic film 16, and a second transparent organic film 18. See Sato at col. 3, lines 9-32. Tran discloses a radiation detection panel 10 that includes a flat substrate 14, individual photosensitive modules 12, a phosphor layer 16, and a protective front plate 18. See Tran at col. 4, lines 58-67. Matsuda discloses an x-ray detector that includes a scintillator 1 and a photodiode 2 that are optically connected by a transparent adhesive 3. See col. 2, line 66, to col. 3, line 3, of Matsuda.

The Office argues on pages 4-6 of the Office Action that the combination of Takahara, Sato, Tran, and Matsuda provide a phosphor layer, wherein said phosphor layer has a surface that is configured to be bonded onto the photoelectric conversion film by an adhesive that transmits light, as recited in claims 1 and 11. However, the combination of Takahara, Sato, Tran, and Matsuda does not disclose or suggest that such a phosphor layer has a surface that has been smoothed by a treatment using a metal roll or a metal plate, as recited in claims 1 and 11.

Okumura discloses a ceramic scintillator that is produced by sintering particles and heat treating the sintered body. See Okumura at col. 2, lines 59-65; col. 3, lines 2-6; col. 4, lines 50-53; col. 7, lines 2-18. However, the teachings of Okumura fail to remedy the deficiencies of Takahara, Sato, Tran, and Matsuda.

For at least the reasons discussed above, reconsideration and withdrawal of this rejection is respectfully requested. Furthermore, Applicant respectfully reserves the right to submit evidence and further argue the non-obviousness of the numerical ranges recited in claims 1 and 11.

Claims 21-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable Takahara, Sato, Tran, Okumura, Ohara, and Matsuda as applied to claims 1 and 11 above, and further in view of U.S. Patent No. 4,032,791 to Chiola *et al.* (hereafter “Chiola”). This rejection is respectfully traversed. Chiola fails to remedy the deficiencies of Takahara, Sato, Tran, Okumura, Ohara, and Matsuda as discussed above in regard to independent claims 1 and 11,

from which claims 21-24 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

New Claims

New claims 25 and 26 have been added. Claim 25 depends from claim 1 and claim 26 depends from claim 11. Claims 25 and 26 are allowable over the prior art for at least the reasons discussed above and for their respective additional recitations.

CONCLUSION

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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